**Host-Parasite Dynamics and Population Genetics Provide Insight into the Movement Ecology of an Endangered Bat Species**

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Host-parasite dynamics vary between species pairs and can have effects on the dispersal and transmission of parasites. *Myodopsylla insignis*, a bat flea,and *Spinturnix americanus,* a bat wing mite,are two common ectoparasites of the little brown myotis(*Myotis lucifugus*) that differ in life cycles and time spent on the host. Our aim is to characterize the genetic structure present in *S. americanus* and *M. insignis* relative to the known genetic structure of the host, *M. lucifugus*. We DNA barcoded 223 *S. americanus* and 87 *M. insignis* specimens from multiple sites in Atlantic Canada, and examined their genetic diversity, genetic structure, and biogeography. We found limited evidence of genetic structure with *M. insignis* exhibiting some isolation by distance in Labrador and *S. americanus* exhibiting regional differentiation between the island of Newfoundland and the mainland, similar to *M. lucifugus*.There is also evidence to support that *M. insignis* underwent historical population expansion and some evidence that *S. americanus* underwent historical population expansion or selection. Our study highlights the importance of considering host-parasite dynamics and parasite life history when investigating the genetic structure of parasites and illustrates how parasites can provide insight into the movement ecology and history of their hosts.